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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/284,024 04/06/99 DELIUS

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EXAMINER

IM52/0613

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ART UNIT

PAPER NUMBER

9

1772
DATE MAILED:

06/13/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

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Office Action Summary

Application No.

09/284,024

Applicant(s)

DELIUS, ULRICH

Examiner

Sow-Fun Hon

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 January 2001.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 12-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☐ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____

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DETAILED ACTION

Response to Amendment

Election/Restrictions

1. Newly submitted claims 12-14 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

The newly added process claims lack unity of invention under PCT Rule 13.1 with the originally filed article claims, because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reason: Claim 1 is obvious over Schumacher in view of Chacko et al. and Vicik. Accordingly, the special technical feature linking the two inventions, a biaxially stretched and thermoset, tubular, seamless, single-layer or a biaxially stretched and thermoset, tubular, seamless, multiple-layer food casing having a residual shrinkage in the range of from 5 to 20 % at 80 °C, in which the layer or, in the case of multiple-layer casings, at least one of the layer comprises a block copolymer containing aliphatic polyamide blocks and soft aliphatic polyether blocks which block copolymer corresponds to one of the formulae I to III in the disclosure, does not provide a contribution over the prior art, and no single inventive concept exists. Therefore, restriction is appropriate.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 12-14 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Rejections Withdrawn

2. The 35 U.S.C. 103(a) rejection in Paper # 7, paragraph 4 (mailed 01/12/01) of claims 1-11 as being unpatentable over Chacko et al. in view of Schumacher has been withdrawn due to Applicant's amendment in Paper # 8 (filed 04/11/01).

New Rejections

Claim Rejections - 35 USC § 112

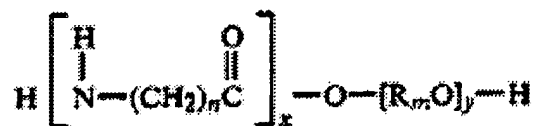
3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear what the claim limitation "thermoset" means. Does it mean "thermal set"?
5. Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear what the claim limitation "residual shrinkage in the range of from 5 to 20 % at 80 °C" means. Is this the residual shrinkage that is present in the film after it is heat set prior to stuffing the film casing?

Claim Rejections - 35 USC § 103

6. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schumacher in view of Chacko et al. and Vicik (US Patent 5,698,279).

Schumacher has a shrinkable film composed of at least one layer which can be a mixture 85-10 weight percent of an elastomeric component and 15-90 weight percent of a partially aromatic polyamide or partially aromatic copolyamide (abstract). Schumacher teaches that the films are used for sausage skins (casings) (column 13, lines 8-20) due to its ability to shrink-wrap temperature sensitive goods at low temperatures (column 4, lines 31-54). Schumacher teaches that the film consists of at least one layer of polyamide of the composition and at least one layer of polyolefin (column 7, lines 43-46). Schumacher teaches that the film possess stretchability at relatively low temperatures with not too high an expenditure of force (column 2, lines 45-55). Although Schumacher teaches that the elastomeric components include block copolymers of polyether segments and polyamides segments, such as those commercially available under the tradename of "Pebax" (column 3, lines 50-55), Schumacher fails to teach the claimed specific compositions of polyether and polyamide segments and the claimed residual shrinkage of the film.

Chacko et al. have a polyamide composition useful to form film. The composition comprises a a block copolymer of a polyamide and a poly(amide-ether) block copolymer with the preferred formula below. The composition comprises from about 70 to about 98 % by weight of a polyamide such as nylon 6, nylon 6,6 nylon 12 and nylon 6,12 (column 2, lines 19-24). Preferred polyether blocks are based on polyethylene glycol and polytetramethylene (polybutylene) glycol (column 2, lines 48-50). Chacko et al. teach the specific use of of Pebax 4011 based on nylon 6 and polyethylene glycol (column 6, lines 31-33). Colorants are minor additives taught to be of value in the composition (column 4, lines 16-19). The formula for the block copolymer is on the following page.



where R is an alkyl or substituted alkyl group with from one to about 12 carbons, n is an integer from 2 to 20, and preferably 4 to 12, m is an integer from 2 to 6, preferably from 2 to 4, and x and y are numbers from about 50 to about 30,000 (column 1, lines 50-68 and column 2, lines 1-6).

Chacko et al. teach that the film can be oriented by biaxial forming with methods well known to those skilled in the art, with draw ratios up to 6:1 (column 4, lines 51-55). The materials thus produced were thereafter formed into films by extruding a bubble of film (column 9, lines 17-23). Chacko et al. teach that the film conforms easily to a mold form, yet permits stretching of the film to conform to the mold under differential pressure, and further permits ready removability of the film from the mold (column 5, lines 26-35). Chacko et al. teach that the films are used widely for food packaging (column 1, lines 25-30).

Because Chacko et al. teach that that the film, widely used for food packaging, is easily conformable, yet permits stretching and permits ready removability from the mold, it would have been obvious to one of ordinary skill in the art to have used the specific block polyetheramides of Chacko et al. in the invention of Schumacher to obtain a sausage casing with improved stretchibility and ease of processing.

Chacko et al., however, fail to teach that the film has a residual shrinkage in the range of from 5 to 20 % at 80 °C.

Vicik discloses that it is well known in the art to subject the sausage casings to after-shrinking treatment during which the casing shrinks and lies more closely and wrinkle-free against the encased sausage meat. The cooked and cooled sausage is heated to at least about 80 °C (column 2, lines 25-35). The shrinkage value taught by Vicik is at least 10 % at 90 °C (column 7, lines 10-15).

Because Vicik teaches that it is well known in the art to subject the sausage casings to after-shrinking treatment during which the casing shrinks and lies more closely and wrinkle-free against the encased sausage meat, it would have been obvious to one of ordinary skill in the art to have used a residual shrinkage of 5 to 20 % at 80 °C in the invention of Schumacher in order to obtain a sausage encased by a tubular film that is wrinkle free.

Therefore it would have been obvious to one of ordinary skill in the art to have combined the teachings of Vicik and Chacko et al. in the invention of Schumacher in order to obtain an improved sausage casing with the desired physical characteristics.

Response to Arguments

7. Applicant's arguments in Paper # 8 (filed 04/11/01) with regards to the valid combination of Schumacher and Chacko et al. have been fully considered but they are not persuasive.

Schumacher is the primary reference and teaches a biaxially stretched shrinkable film for use in sausage casings, and that stretching is required for shrinkability ('507, column 8, lines 42-55). Chacko et al. is the secondary reference that teaches the stretching of the film to conform to the mold under differential pressure ('274, column 5, lines 25-35) with the use of the specific claimed composition to be used as the Pebax resin taught by Schumacher. In view of

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Schumacher's teaching that good stretching is required for shrinkability, it would naturally follow that the stretchable composition taught by Chacko would give good shrinkability.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


BLAINE COPENHEAVER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700


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Any inquiry concerning this communication should be directed to Sow-Fun Hon whose telephone number is (703)308-3265. The examiner can normally be reached Monday to Friday from 9:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached on (703)308-4251. The fax phone number for the organization where this application or proceeding is assigned is (703)305-3599.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.

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